

POL'KIN, S.I. (Moskva); PLAKSINA, L.D. (Moskva); CHANTURIYA, V.A. (Moskva)

Effect of emulsifying and of oxygen on the properties of oleic acid as collector in the selective flotation of pyrochlore-zircon concentrates. Izv. AN SSSR. Met. i gor. delo no.5: 154-158 S-0 '63. (MIRA 16:11)

CA PLAKSINA, L.D.

Chloridation of platinum metals with ammonium chloride  
O. E. Zvyagintsev and L. D. Plaksina. *Izvest. Sektora  
Platiny i Drugikh Blagorod. Metal. Tuzh. Obshchestva Neorg.  
Khim., Akad. Nauk S.S.S.R.* No. 24, 121-80(1959). -- Pt  
and Pd were chloridated with  $\text{NH}_4\text{Cl}$  1:2 at 250-400.  
The reaction is more effective when metals are finely di-  
vided and in the presence of Fe and Cu but not Ni. Ex-  
cess  $\text{NH}_4\text{Cl}$  gave no advantage. Chloridation dropped  
sharply at temps. above 450°. Pd is chloridized more  
easily than Pt.  
M. Hosh

PLANKIN, L.Y.  
C.A

4

**Rational phase analysis of slimes from nickel electrolysis.**  
O. E. Zvyagintsev and L. D. Plaksina. *Izvest. Sektora Plazmy i Drugikh Blagorodnykh Metal., Inst. Obshchei i Neorg. Khim., Akad. Nauk S.S.S.R.* No. 22, 95-110 (1918). The object of this investigation was to det. the distribution of Ni in electrolytic slimes among free metal, sulfide, sulfate, and oxide. The dried and ground slime contained Fe 3.62, Cu 8.43, Ni 30.54, Pb 0.634, Ca 1.32, Mg trace, Si 2.23, sulfide S 3.27, and sulfate S 0.97%. A 0.1-g. sample was treated with 150 ml. of H<sub>2</sub>O to remove NiSO<sub>4</sub>. The residue was treated with 100 ml. of 2% CuSO<sub>4</sub> soln. at boiling temp. lasting 4 hrs., and this treatment was repeated until the filtrate was free of Ni. In this step all the metallic Ni and 17% of NiS were removed. The residue was boiled twice for 1 hr. with a mixt. of glacial AcOH 25, H<sub>2</sub>O 120, and H<sub>2</sub>O<sub>2</sub> 5 ml. This removes the rest of the NiS. The residue was treated with aqua regia to dissolve oxidic Ni. Details of procedure are given.  
M. Hosen

COMMON ELEMENTS		PROCESSES AND PROPERTIES INDEX	
<p><i>Plaksina</i></p> <p><b>Precipitation of mercury.</b> L. D. Plaksina and I. N. Plaksina. U.S.S.R. 65,882, Feb. 28, 1940. Mercury is pptd. from a sulfide soln. with Zn amalgam. The method is applicable to hydrometallurgical extrn. of Hg from its ore.</p> <p>M. Hosh</p>			
<p>ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>			
<p>GROUPS</p> <p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100</p>		<p>AUTHOR INDEX</p> <p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100</p>	

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PLASMINA, L-D.

41. 7. Reproduction of *Imbricaria*  
*dehollensis*

**Precipitation of mercury from solutions of sulphides with amalgamated zinc.** In L. Plaksina and L. D. Plaksina (*Compt. rend. Acad. Sci. U.R.S.S.*, 1943, **40**, 188-190).—Zn amalgam containing 4% of Hg pptd. up to 98.5% of Hg from Na<sub>2</sub>S solutions in 12 hr. With a higher Hg: Zn ratio 90-95% of the Hg can be pptd. in 30 min. The temp. range 0-20° is suitable. Pptn. of Hg from BaS solutions

with amalgamated Zn requires temp.  $< 10^{\circ}$  and alkalinity  $< 0.5\%$ . The consumption of Zn is 1.5–2 times the wt. of Hg recovered.

I. J. J.

PLAKSINA, L. D.

ca

9

Rational analysis of gold losses in tailings. I. N. Plak-  
sin and L. D. Plaksina. *Zolotaya Prom.* 12, No. 5-6,  
26-8, (1940). - On the basis of exptl. data obtained at two  
mills an attempt is made to show the production man the  
simplest methods of classifying Au losses in flotation tail-  
ings. Only analytical procedures and methods employed  
widely in mills are used. B. Z. Kamich

ASM-35A METALLURGICAL LITERATURE CLASSIFICATION

Broadening of the Scattering Line and the Orientational Relaxation Time of  
Solutions SOV/51-4-8-8/24

cases decrease of the relaxation time in solution may be due to the lack of such orientational order around the dissolved molecules as that which exists around each molecule of a pure substance. Departure from the orientational order in solution makes re-orientation of molecules easier than in pure substances. There are 3 tables and 2 Soviet references.

ASSOCIATION: Leningradskiy Gosudarstvennyy Universitet, Fizicheskiy Institut  
(Leningrad State University, Physics Institute)

SUBMITTED: June 7, 1957

Card 4/4

SOV/51-4-6-8/24

Broadening of the Scattering Line and the Orientational Relaxation Time of  
Solutions

Benzophenone and salol were investigated only in solution in carbon tetrachloride. The results shown in the tables indicate that both the methods used give practically identical results. In solutions, as well as in pure liquids, distribution of intensity in the relaxational wing fits well the formula of M.A. Leontovich with one relaxation time. The most remarkable result obtained in the work is the almost complete independence of the orientational relaxation time of solvent viscosity. This almost complete departure from the Debye's formula which gives the relationship between the orientational relaxation time of molecules and solvent viscosity may be explained as follows. Orientational relaxation of molecules is a rotational Brownian motion and, in contrast to the translational Brownian motion, it does not involve the forces between the solvent molecules and, therefore, does not depend much on solvent viscosity. The tables show that the relaxation times for all solutions, except the solutions of hydrogen disulphide in heptane are considerably smaller than the relaxation times of pure liquids. In the case of benzophenone and salol this may be explained simply by the difference between the viscosity of solutions and pure liquids. In the remaining

Card 3/4



SOV/51-4-6-8/24

Broadening of the Scattering Line and the Orientational Relaxation Time  
of Solutions

carbon tetrachloride, cyclohexane and heptane. Intensities of the anisotropic scattering of the liquids used as solvents are, compared with the anisotropic scattering of benzene, equal to 0.092, 0.046, 0.146, 0.060, 0.064 and 0.108 respectively. To ensure that scattering of light from the solute molecules is several times higher than the scattering from the solvent the following concentrations were used: hydrogen disulphide 10% by volume, chlorobenzene and bromobenzene 15%, benzophenone and salol 6%. Broadening of the scattering line in solutions was studied by two methods: the resonance filter method (Ref 1) and the spectroscopic method (Ref 2). Because of the small light power of the apparatus used by the authors, it was not possible to measure broadening of the scattering line of the solvents themselves. It was found in the majority of cases the relaxational wing in solutions is considerably wider than in pure liquids. The results of the experimental determination of the orientational relaxation time for molecules of hydrogen disulphide, chlorobenzene, bromobenzene, benzophenone and salol in solutions are given in Tables 1-3 which also contain data for pure liquids.

Card 2/4

SOV/51-4-6-8/24

**AUTHORS:** Atakhodzhayev, A.K., Vuka, M.F. and Plaksina, K.V.

**TITLE:** Broadening of the Scattering Line and the Orientational Relaxation Time of Solutions (Ushireniye linii rasseyaniya i vremya oriyentatsionnoy relaksatsii rastvorov)

**PERIODICAL:** Optika i Spektroskopiya, 1958, Vol IV, Nr 6, pp 763-766 (USSR)

**ABSTRACT:** To find the relationship between the orientational relaxation time of molecules and viscosity of the medium it is usual to study solutions. Qualitative measurements, carried out in the authors' laboratory many years ago, had shown that, in certain cases, transition from the pure liquid to a solution is accompanied by broadening of the scattering line which can be observed with the naked eye. The present paper reports a more detailed investigation of this phenomenon. Five liquids with intense anisotropic scattering were chosen for this investigation; they were: hydrogen disulphide, chlorobenzene, bromobenzene, benzophenone and salol. The first three liquids possess low viscosity and produce a wide relaxational wing on scattering of light, the last two liquids possess high viscosity and produce a very narrow relaxational wing. The following liquids with weak anisotropic scattering were used as solvents: ether, ethyl alcohol, acetone,

Card 1/4

BUDNIKOV, P.P.; STRELKOV, M.I.; PLAKSINA, F.Ye.

Content of sulfides in granulated blast furnace slags. Izv. AN  
SSSR. Met. i gor. delo no.5:80-83 S-0 '63. (MIRA 16:11)

VAL'BERG, G.S., kandidat tekhnicheskikh nauk; PLAKSINA, F.Ye., inzhener.

Direct determination of carbon content in raw materials and  
slurry. TSement 23 no.1:26-27 Ja-F '57. (MLBA 10:4)

1. Yuzhgiprotsement.  
(Carbon) (Cement industries)

PSHENICHNOV, A.V.; PSHENICHNOV, R.A.; PECHERKINA, S.A.; PLAKSINA, A.N.

Cultivation of some pathogenic Rickettsia on noncellular polysynthetic nutrient media. Zhur. mikrobiol., epid. i immun. 41 no.3:3-7 Mr '64. (MIRA 17:11)

1. Permskiy institut vaktsin i syvorotok i Permskiy meditsinskiy institut.

L 07872-67

ACC NR: AP6030664

moving loads and pulsating forces, calculation of rocket trajectories under power.  
Orig. art. has: 28 formulas.

SUB CODE: 12/ SUBM DATE: 25Sep65/ ORIG REF: 003/ OTH REF: 001

Card 2/2 hc

I. 07872-67 EWT(d) IJP(c)

ACC NR: AP6030664

SOURCE CODE: UR/0166/66/000/004/0026/0031

AUTHOR: Fayzibayev, E. F.; Plaksina, A. I.

ORG: Institute of Mathematics im. V. I. Romanovskiy, AN UzSSR (Institut matematiki AN UzSSR)

TITLE: Concerning certain properties of the solution of a nonlinear differential equation with slowly varying parameters

SOURCE: AN UzSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 4, 1966, 26-31

TOPIC TAGS: nonlinear differential equation, differential equation solution, asymptotic solution, vibration analysis

ABSTRACT: The authors analyze a vibrating system in which some parameters vary slowly with time and are described by the nonlinear differential equation

$$A(\tau)\ddot{x} + B(\tau)\dot{x} + C(\tau)x = \epsilon f(\tau, x, \dot{x}), \quad (1)$$

where  $\epsilon$  is a small positive parameter,  $\tau = \epsilon t$  is the slow time, and  $A$ ,  $B$ , and  $C$  are positive continuous functions of  $\tau$ . A one-sided and a two-sided limits of the distances between two zeroes of the solution of this nonlinear differential equation are presented, and the solutions of two equations of this type are compared. The limits and comparisons are expressed in the form of appropriate theorems. The differential equations considered are encountered in problems involving the passage of a system through resonance, vibrations of bridges and lifting cranes under the influence of

GOVORUKHIN, A.P.; SMELAYA, T.V.; PSHENICHNAYA, A.M.; ZAYTSEVA, M.B.  
Prinimali uchastiye: KALASHNIKOV, N.V.; PLAKSINA A.I.;  
DOLGOSHOV, V.M., starshiy nauchnyy sotrudnik. POKHLYAGIN,  
I.I., otv.red.; MIROSENKO, Z.I., red.; VOLKOV, N.V., tekhn.red.

[Agroclimatic manual for Lipetsk Province] Agroklimaticheski  
spravochnik po Lipetskoj oblasti. Leningrad, Gidrometeor.izd-vo,  
1960. 94 p. (MIRA 14:1)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye gidrometeoro-  
logicheskoy sluzhby. Upravleniye gidrometeorologicheskoy sluzhby  
TSentral'no-Chernozemnykh oblastey. 2. Upravleniye gidrometsluzhby  
TSentral'no-Chernozemnykh oblastey (for Govorukhin, Smelaya,  
Pshenichnaya, Zaytseva). 3. Institut geografii Akademii nauk SSSR  
(for Dolgoshov).

(Lipetsk Province---Crops and climate)



GOVORUKHIN, A.P.; PSHENICHNAYA, A.M.; SMELAYA, T.V.; ZAYTSEVA, M.B.;  
Prinimali uchastiye: KALASHNIKOV, N.V.; FLAKSINA, A.I.;  
DOLGOSHOV, V.I., starshiy nauchnyy sotrudnik. PORTNYAGIN, I.I.,  
otv.red.; ROGOVSKAYA, Ye.G., red.; BRAYNINA, M.I., tekhn.red.

[Agroclimatic reference book on Orel Province] Agroklimaticheskii  
spravochnik po Orlovskoi oblasti. Leningrad, Gidrometeor.izd-vo,  
1960. 91 p. (MIRA 13:11)

1. Kursk. Gidrometeorologicheskaya observatoriya. 2. Upravleniye  
gidrometaluzhby tsentral'no-chernozemnykh oblastey (for Govorukhin,  
Pshenichnaya, Smelaya). 3. Institut geografii AN SSSR (for Dolgoshov).  
(Orel Province---Crops and climate)

GOROKHOV, D.I.; GOVORUKHIN, A.P.; SMELAYA, T.V.; PSHENICHNAYA, A.M.;  
ZAYTSEVA, M.B.; Prinimali uchastiye: KALASHNIKOV, N.V.;  
FLAKSINA, A.I.. PORTNYAGIN, I.I., otv.red.; ROGOVSKAYA, Ye.G.,  
red.; VOLKOV, N.V., tekhn.red.

[Agroclimatic reference book on Tambov Province] Agroklimate-  
cheskii spravochnik po Tambovskoi oblasti. Leningrad, Gidro-  
meteor.izd-vo, 1959. 123 p. (MIRA 13:2)

1. Kursk. Gidrometeorologicheskaya observatoriya. 2. Upravle-  
niye gidrometsluzhby TSentral'no-Chernozemnykh oblastey (for  
Gorokhov, Govorukhin, Smelaya, Pshenichnaya, Zaytseva).  
(Tambov Province---Crops and climate)

ISMAILOV, M.I.; PLAKSINA, A.B.; SATTAROV, A.

Composition of a fossil tree from the Tashkent region. Zap.  
Uz. otd. Vses. min. ob-va no.16:88-95 '64. (MIRA 18:6)

PLAKSIN, Yu. L. 1900.

Assembly of hoisting machinery. Shakht.stroi. 9 no. 416-27 Ap 1965.  
(MIRA 1885)

1. Test Soyuzshakhtospetsmontazh.

MOROZOV, I. G.; INYUTIN, Ye. I.; LANTSOV, M. N.; PLAKSIN, Ye. A.

"Experimental investigation on physical characteristics of water-water  
reactors for small power plants."

report submitted for 3rd Intl Conf, Peaceful Uses of Atomic Energy, Geneva,  
31 Aug-9 Sep 64.

PLAKSIN, V.N.; PRITS, V.L.[deceased]; KUZ'MOV, N.T., inzh., red.

[Machines for the preparation and placement of fertilizers]  
Mashiny dlia zagotovki i vneseniia udobrenii. Moskva, Mash-  
giz, 1963. 97 p. (MIRA 17:4)

BUSHUYEV, Nikolay Mikhaylovich; ALEKSEYEV, Georgiy Petrovich; PLAKSIN, Vladimir Nikolayevich; TARCHEVSKIY, A.V., kand.tekhn.nauk, retsenzent; KALENICHENKO, P.T., inzh., retsenzent; DUGINA, N.A., tekhn.red.

[Agricultural machinery; manual for collective farm workers]  
Sel'skokhoziaistvennyye mashiny; spravochnik kolkhoznogo rabotnika.  
Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960.  
229 p. (MIRA 13:11)

(Agricultural machinery)

SIDOROV, Fedor Filippovich; ALEKSEYEV, G.P., inzh., red.; BUSHUYEV, N.M.,  
kand.tekhn.nauk, red.; GUTMAN, I.M., inzh., red.; KUZ'MOV, N.T.,  
inzh., red.; IGnat'yev, M.G., agronom, red.; PICHAK, F.I., kand.  
tekhn.nauk, red.; PLAKSIN, V.N., inzh., red.; POLKANOV, I.P.,  
kand.tekhn.nauk, red.; MARCHENKOV, I.A., tekhn.red.

[Mechanic for combines and agricultural machinery] Slesar' po  
remontu kombainov i sel'skokhoziaistvennykh mashin. Moskva, Gos.  
nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 107 p.

(MIRA 14:3)

(Agricultural machinery--Maintenance and repair)



PICHAK, Fedor Ivanovich, kand.tekhn.nauk; ALEKSEYEV, G.P., inzh., red.;  
KUZ'MOV, N.T., inzh., red.; PYATEPSKIY, B.G., inzh., red.;  
PLAKSIN, V.N., inzh., red.; SOBOLEV, L.A., inzh., red.;  
IGNAT'YEV, M.G., agronom, red.; MARCHENKOV, I.A., tekhn.red.

[Checking parts in repairing tractors and agricultural machinery]  
Kontrol' detalei pri remonte trektorov i sel'skokhoziaistvennykh  
mashin. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry,  
1960. 89 p. (MIRA 14:1)

(Tractors--Maintenance and repair)  
(Agricultural machinery--Maintenance and repair)

PLAKSIN, Yakov Grigor'yevich; FLEKKEL' Arkadiy Il'ich; MIKITYUKO,  
 Vasilii Rodionovich; NOVIKOV, Grigoriy Porfir'yevich;  
 SHTCBA, Ivan Ivenovich; MARKOVICH, M.P., kand.tekhn.nauk, dots.,  
 rezh. i, GRIGOR, V.I., dots., rezhent; MITROSHIN, S.N., re-  
 zhent; SLAVIN, D.S., otv.red.; CHERNEGOVA, E.N., red. izd-va;  
 MAKSIMOVA, V.V., tekhn.red.  
 [Principles of building and mining-engineering structures]  
 Osnovy stroitel'nogo dela i gornoinzhenernye sooruzhenia.  
 Izd.2., dop. i perer. [By] I.A.G.Plaksin i dr. Moskva,  
 Gosgortekhnizdat, 1963. 463 p. (MIRA 16:12)  
 (Building) (Mine buildings)

FLAZSEN, V. S.

Hoisting trains in cases of derailment. *Koshva. Gos. transport. zhel-dor. izd-vo, 1954. 117 p.*  
(55-47882)

TF544.15

1. Railroads - rolling-stock.
2. Hoisting machinery.

PLAKSIN, V.S.; TSARENKO, A.P., redaktor; KHITROV, P.A., tekhnicheskii  
redaktor

[Hoisting trains in cases of derailment] Pod'emka podvizhnogo sostava  
pri skhode s rel'sov. Moskva, Gos. transp. zhel-dor. izd-vo 1954.  
217 p. (Railroads—Accidents) (Hoisting machinery) (MLRA 8:4)

PLAKSIN, V.I.

Precision of sawing with log frame saws. Dokl. prom. 14 no.2:9-12  
F '65. (MIRA 18:6)

1. Novo-Vyatskiy domostroitel'nyy kombinat.

PLAKSEN, V.F., inzh.-mekhanik (st. Magnitogorsk, Yuzhno-Ural'skoy derezni.  
Automatic manufacture of clamps. Put' i put. khoz. " " " " " "  
Mr '61. (Railroads--tools and implements)

PLAKSIN V.A.

NOGALIM, A.M.; PLAKSIN, V.A.; TSESEL'SKIY, D.S.; LIBIN, A.L.; MEZENIN, N.N.;  
CHIGRINTSEVA, M.F.; DEM'YANOVSKAYA, Z.N.

Using low-calory diets in the compound treatment of hypertension at  
the Kislovodsk health resort. Vop.pit. 16 no.1:76-78 Ja-F '57.  
(MLRA 10:3)

1. Iz Bal'neologicheskogo instituta na Kavkazskikh mineral'nykh  
vodakh i sanatoriyev imeni Lenina, imeni X let Oktyabrya, "Skala",  
"Gornyyak" No.3 i No.19 Kislovodskogo kurorta.  
(HYPERTENSION) (KISLOVODSK--DIET IN DISEASE)  
(DIET IN DISEASE)

PLAKSIN, V.

Only the skillful do not depend on weather. Kryl.rod. 14 no.3:  
22-23 Mr '63. (MIRA 16:4)

(Airplanes--Models)



KUMARIN, A., starshiy prepodavatel'; PLAKSIN, V.; LEVIN, S.; LIVANOV, V.

New forms of the organization of technical control. *Sots. trud*  
7 no.9:79-85 S '62. (MIRA 15:9)

1. Kuybyshevskiy planovoy institut (for Kumarin). 2. Nachal'nik  
otdela tekhnicheskogo kontrolya Chetvertogo ordena Lenina  
podshipnikovogo zavoda (for Plaksin). 3. Nachal'nik otdela  
tekhnicheskogo kontrolya Kuybyshevskogo zavoda avtotraktornogo  
elektrooborudovaniya i karbyuratorov (for Levin). 4. Nachal'nik  
otdela tekhnicheskogo kontrolya Devyatogo podshipnikovogo zavoda  
im. V.V.Kuybysheva (for Livanov).  
(Kuybyshev Province---Machinery industry---Quality control)

PLAKSIN, S.V.

Development of Ferrous Metallurgy of the European Countries of the People's Democracies in the System of the International Socialist Division of Labor.

The following dissertations were defended in the Institute of the Economics of the World Socialist System, Candidate of Economic Sciences.

Vestnik Akad Nauk, No. 4, 1963, pp. 119-145

S/193/60/000/004/006/006  
A004/A001

### Development Prospects of the Czechoslovakian Ferrous Metallurgy

Combine in Košice which will be the most important steel making plant of the country with a total capacity equal to the three biggest metallurgical plants of present day Czechoslovakia. Compared with 1960, the productivity of the metallurgical industry by 1965 is to be increased by 41.3% while the product cost price is to be cut by 9.9%. There are 2 tables and 12 non-Soviet references. ✓

Table 2 CONT.

12/Непрерывные широкополосные станы горячей прокатки	1-2	5,5-11	5-10
13/Непрерывные широкополосные станы холодной прокатки	1-2	25-35	8-10

S/193/60/000/004/006/006  
A004/A001

# Development Prospects of the Czechoslovakian Ferrous Metallurgy

Table 2:

1) type of mill; 2) rolling speed, m/sec;  
3) attained in the CSR at present; 4) for  
newly planned Czechoslovakian mills; 5)  
world average; 6) blooming mill; 7) large-  
section mill; 8) medium-section mill; 9) :  
small-section mill; 10) continuous strip  
mills; 11) continuous wire mills; 12) con-  
tinuous hot-rolling wide strip mills; 13)  
continuous cold-rolling wide strip mill.

Capital investment in the Czechoslovakian  
ferrous industry under the third Five-Year  
Plan (1961 - 1965) will exceed that of the  
last decade (1949-1958) by 19%. A consider-  
able part of these investments will be made  
at the new huge East Slovakian Metallurgical

Card 5/6

1) Тип стана	2) Скорость прокатки, м/сек		
	3) достигнута в настоящее время в ЧССР	4) у вновь строек- тированных в ЧССР станов	5) достигнута в мире в среднем
6) Блюминги . . . . .	4,7	—	6,8
7) Крупносортные . . .	7,2	8,0	3-6
8) Среднесортные . . .	5,3	—	4,7
9) Мелкосортные . . .	9,4	12-15	9,0
10) Непрерывные поло- совые . . . . .	8,0	15-18	12-25
11) Непрерывные прово- лочные . . . . .	7-9	32	21-33

S/193/60/000/004/006/006  
A004/A001

#### Development Prospects of the Czechoslovakian Ferrous Metallurgy

be produced by 1965, 30.5% of which being sheets. The steel tube production is to be increased to 882,000 tons in 1965, 27% being welded pipes. 180,000 tons of cold rolled strip and 433,000 tons of drawn wire are planned for 1965. 64 new economical rolled sections will be developed from 1961 - 1965. Table 2 shows the comparative figure of the rolling speeds attained in the CSR at present, being planned for new mills and the world average figures. ✓

Card 4/6

S/193/60/000/004/006/006  
A004/A001

#### Development Prospects of the Czechoslovakian Ferrous Metallurgy

4.58 tons in 1953 to 5.5 tons in 1958, and in big open-hearth furnaces to 6.377 tons. In 1958 on 42% of the open-hearth furnaces the heat control was fully automated, while more than 26% of all open-hearth steel was smelted with the aid of oxygen. The annual pig iron output per worker in the blast-furnace shops increased from 790 tons in 1955 to 918 tons in 1957, while the corresponding figures for steel production were from 620 tons in 1955 to 746 tons in 1958. The author then turns to the development plans of the Czechoslovakian ferrous metallurgy under the 1961 - 1965 Five-Year Plan and states that by 1965 the iron ore output is to be increased to 4.3 million tons. The coke production in 1965 is going to be 11,270,000 tons, while it is planned to produce in 1965 7.65 mill. tons pig iron. In the same year the utilization factor of the useful blast-furnace volume is to be improved to 0.760 m<sup>3</sup>/ton pig iron per 24 hours, while the coke consumption per ton of pig iron for steel making is going to amount to 717 kg. The steel production will be 10.5 million tons annually by 1965, so that the per capita production rate will increase to 751 kg. In 1965 it is planned to produce 2 mill. tons of high-quality steels. At present 45% of the steel being produced is of the killed type, while 55% is rimmed steel. Under the third Five-Year Plan 75% of the steel produced will be of the semi-killed type. 7.3 million tons of rolled steel are to

Card 3/6

S/193/60/000/004/006/006  
A004/A001

### Development Prospects of the Czechoslovakian Ferrous Metallurgy

new blast furnaces with an aggregate capacity of 1,515,000 tons annually, eleven open-hearth furnaces with a total capacity of 1,038,000 tons and eight electric furnaces were put into service. Table 1 shows comparative figures of the volume of blast furnaces.

1) Объем доменных печей, м <sup>3</sup>	1937 г.	1948 г.	1957 г.
До 200 . . . . .	45	5,1	6,49
201-400 . . . . .	35	35,5	21,10
401-600 . . . . .	20	35,5	36,16
601-800 . . . . .	—	23,9	21,10
801-1000 . . . . .	—	—	—
1001-1200 . . . . .	—	—	15,15
2) Итого . . . . .	100,0	100,6	100,0

Table 1:

1) blast furnace volume, m<sup>3</sup>; 2) total.

In 1958 more than 29% of pig iron was produced in blast furnaces of more than 300,000 tons annual capacity, while the steel production in large open-hearth shops of more than 400,000 tons capacity per year exceeded 69.7%. The utilization factor of the useful blast-furnace volume improved on the average from 1.417 m<sup>3</sup>/ton per 24 hours in 1953 to 1.063 m<sup>3</sup>/ton in 1958, while the steel output per sq. meter of hearth area of open-hearth furnaces increased on the average from

S/193/60/000/004/006/006  
A004/A001

AUTHOR: Plaksin, S.V.  
TITLE: Development Prospects of the Czechoslovakian Ferrous Metallurgy  
PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, 1960, No. 4, pp.  
75 - 78

TEXT: In his detailed survey on the Czechoslovakian ferrous metallurgy the author points out that the country takes up the fifth rank in the world as to per capita production of steel. Czechoslovakia has large deposits of coking coal, the greater part of which are situated in the Ostravo-Karvinsk Coal Fields. In 1958 the country produced 7,370,000 tons of coke, 80% of which was metallurgical coke. On the other hand, the demand of the Czechoslovakian metallurgy for iron ore can only be covered by 36% with domestic ores, the rest has to be imported. In 1958 the Czechoslovakian industry produced 3,774,000 tons pig iron, 5,510,000 tons steel and 3,759,000 tons rolled material (without tubes), i.e. an increase of 125, 140 and 139% respectively compared to 1937. 90% of the pig iron was marked for steel making and 10% for foundry and blast-furnace ferro-alloys. In 1957, 82.5% of the steel produced in Czechoslovakia was smelted in open-hearth furnaces, 4.7% was Thomas steel and 12.8% electric steel. During 1949-1957 six

Card 1/6



PLAKS IN, S.V.

Production of ball iron from lean ores in Czechoslovakia. Biol.tekh.-  
ekon.inform. no.10:71-72 '60. (MIRA 13:10)  
(Czechoslovakia---Iron---Metallurgy)

NIKIFOROV, L.A.; NIKOLAYENKO, Zh.I.; VOLKOV, N.V.; SHVETSOV, N.I.;  
PLAKSIN, S.V.; POPOV, N.N.; PEKSHEV, Yu.A.; KARSHINOV, L.N.;  
YAKIMOVA, T.A.; SHALASHOV, V.P.; VASYANNIN, Yu.L.; KRASNOV, L.V.;  
PUSENKOV, N.N.; VASIL'YEVA, G.N.; TSAOURIYA, G.M., tekhn. red.

[Economic development of the people's democracies of Europe and  
Asia; statistical collection] Razvitie ekonomiki stran narodnoi  
demokratii Evropy i Azii; statisticheskii sbornik. Moskva,  
Vneshtorgizdat, 1961. 470 p. (MIRA 15:5)  
(Communist countries--Statistics)

OLEYNIK, I.P., kand. ekon. nauk, nauchn. sotr.; VOINOV, A.M., nauchn. sotr.; SEMENOV, I.I., nauchn. sotr.; PLAKSIN, S.V., nauchn. sotr.; KACHALOV, I.P., nauchn. sotr.; SEMENOVA, L.S., nauchn. sotr.; STOROZHEV, I.V., nauchn. sotr.; GERTSOVICH, G.E., nauchn. sotr.; SERGEYEV, V.P., nauchn. sotr.; ALIKHODZHICH, A., nauchn. sotr.; LISOV, V.Ye., red.; NIKOLAYEV, D.N., red.; PONOMAREVA, A.A., tekhn. red.

[International socialist division of labor] Sotsialisticheskoe mezhdunarodnoe razdelenie truda. Pod red. I.P.Oleinika. Moskva, Izd-vo ekon. lit-ry, 1961. 350 p. (MIRA 14:11)

1. Akademiya nauk SSSR. Institut ekonomiki mirovoy sotsialisticheskoy sistemy. 2. Institut ekonomiki mirovoy sotsialisticheskoy sistemy AN SSSR (for all except Lisov, Nikolayev, Ponomareva). (Communist countries--Division of labor)

PEKSHEV, Yu. A.; LENSKIY, B. V.; AVSENOV, Yu. M.; MILONOV, V. S.; KISVYANTSEV, L. A.; TELEGIN, Ya. I.; POTAPOV, V. I.; NETRUSOV, A. A.; ZYKOV, A. A.; KUDIN, B. M.; MAKSI-MOVA, A. P.; NIKOLAYENKO, Zh. I.; VOLKOV, N. V.; SHEVETSOV, N. I.; PLAKSIN, S. V.; POPOV, N. N.; KARSHINOV, L. N.; YAKIMOVA, T. A.; SHALASHOV, V. P.; VISYANIN, Yu. L.; KRASNOV, L. V.; PUSENKOV, N. N.; IVANOV, N. I., red.; ZOLOTAREV, V. I., red.; SLADKOVSKIY, M. I., red.; LEPNIKOVA, Ye., red.; KOROLEVA, A., mladshiy red.; NOGINA, N., tekhn. red.

[Economic development of the people's democracies; survey for 1959]  
Razvitie ekonomiki stran narodnoi demokratii; obzor za 1959 god. Pod red. N. I. Ivanova i dr. Moskva, Izd-vo sotsial'no-ekon. lit-ry, 1960. 305 p.  
(MIRA 14:6)

1. Moscow. Nauchno-issledovatel'skiy kon'yuktornyiy institut.  
(Europe, Eastern--Economic conditions)

ZOLOTAREV, V.I.; PEKSHEV, Yu.A.; AVSENEV, Yu.M.; KAPRANOV, I.A.; KISVIANTSEV, L.A.; SHVETSOV, N.I.; TELEGIN, Ya.I.; POTAPOV, V.I.; KISVIANTSEV, L.A.; ZYKOV, A.A.; NETRUSOV, A.A.; SENIN, V.P.; MAKSIMOVA, A.P.; NIKOLAYENKO, Zh.I.; VOLKOV, N.V.; KALASHNIKOV, A.A.; PLAKSIN, S.V.; POPOV, N.N.; KARSHINOV, L.N.; YAKIMOVA, T.A.; BASHKANIKHIN, I.K.; KETKOVICH, A.Ya.; SHALASHOV, V.P.; VORONKOV, F.N.; VEKSHIN, G.K.; CHISTYAKOV, M.A.; IVANOV, N.I., red.; SLADKOVSKIY, M.I., red.; LEPNIKOVA, Ye., red.; MOSKVINA, R., tekhn.red.

[Economic development of the people's democracies] Razvitie ekonomiki stran narodnoi demokratii; obzor za 1957 g. Pod red. N.I. Ivanova i dr. Moskva, Izd-vo sots.-ekon.lit-ry, 1958. 619 p.  
(MIRA 12:7)  
1. Moscow. Nauchno-issledovatel'skiy kon'yunktorny institut.  
(Economic conditions)

ZOLOTAREV, V.I.; PEKSHEV, Yu.A.; LENSKIY, B.V.; AVSENEV, Yu.M.;  
KISVYANTSEV, L.A.; SHVETSOV, N.I.; TELEGIN, Ye.I.; ZYKOV, A.A.;  
SENIN, V.P.; METRUSOV, A.A.; GAVRILOV, V.V.; NIKOLAYENKO, Z.I.;  
VOLKOV, N.V.; KALASHNIKOV, A.A.; FLAKSIN, S.V.; POPOV, N.N.;  
KARSHINOV, L.N.; YAKIMOVA, T.A.; SHALASHOV, V.P.; KOSONOGOV, L.A.;  
PUSENKOV, N.N.; SLADKOVSKIY, M.I., red.; IVANOV, N.I., red.;  
LEPNIKOVA, Ye., red.; MOSKVINA, R., tekhn.red.

[Economic development in the people's democracies; review for  
1958] Razvitie ekonomiki stran narodnoi demokratii; obzor za  
1958 g. Pod red. M.I.Sladkovskogo i dr. Moskva, Izd-vo sotsial'-  
no-ekon.lit-ry, 1959. 358 p. (MIRA 13:7)

1. Moscow. Nauchno-issledovatel'skiy kon'yunktorny institut.  
(Communist countries--Economic conditions)

PLAKSIN, S.V.

Production and use of metallurgical coke in Poland and  
Czechoslovakia. Biul.tekh.-ekon.inform. no.2:80-82 '60.  
(MIRA 13:6)

(Poland--Coke industry)  
(Czechoslovakia--Coke industry)

PLAKSIN, S.V.

Thin-walled blast furnaces in Czechoslovakia. Bul.tekh.-ekon.  
inform. no.5:82-83 '59. (MIRA 12:8)  
(Czechoslovakia---Blast furnaces)



ILLEGIBLE

PLAKSIN, S.A.

Use of direct dyes for the continuous dyeing of dark colored fabrics.  
Nauch.-issl.trudy LVNITI 26:137-144 '63.

(NIRA 18:4)

PLAKSIN, S.A., starshiy nauchnyy sotrudnik; SHCHEGOLEVA, R.M., starshiy  
nauchnyy sotrudnik

Method of fabric dyeing with indigosols and vatsols in light and  
medium dark shades. Tekst.prom. 23 no.5:68-70 My '63.

(MIRA 16:5)

1. Ivanovskiy nauchno-issledovatel'skiy tekstil'nyy institut (IvNITI).  
(Dyes and dyeing) (Textile fabrics)

BUNIN, O.A.; MOSKVICHEV, N.T.; PLAKSIN, S.A.; Prinimali uchastiye:  
GORSHKOV, P.V.; SMIRNOV, V.M.; PAVLOV, V.P.; ISAYEV, A.P.;  
LAVROV, G.V.

Operation conditions of the dye aging and reducing  
apparatus. Tekst.prom. 22 no.10:64-67 0 '62. (MIRA 15:11)

1. Ivanovskiy nauchno-issledovatel'skiy tekstil'nyy  
institut.

(Dyes and dyeing--Apparatus)

PLAKSIN, S.A., starshiy nauchnyy sotrudnik

Development rate of insoluble azo dyes on fabrics. Tekst. Prom. 22  
no.1:57-59 Ja '62. (MIRA 15:2)

1. Ivanovskiy nauchno-issledovatel'skiy institut khlopchatobumazhnoy  
promyshlennosti (IvNITI).  
(Dyes and dyeing--Cotton)

PLAKSIN, S.A.; GOTOVTSEVA, L.A.

Methods of preparation and boiling of back cloth. Tekst.prom. 20  
no.4:47-51 Ap '60. (MIRA 13:8)  
(Printing machinery and supplies)  
(Textile fabrics)

PLAKSIN, S.A.; GOTOVTSEVA, L.A.; ZERNOVA, K.N.; RYZHAKOVA, T.S.

Peroxide bleaching of back grey. Tekst.prom. 20 no.2:  
45-48 P '60. (MIRA 13:6)  
(Textile printing--Equipment and supplies)  
(Bleaching) (Textile fabrics)

PLAKSIN, S.A.

Dyeing of cotton in a steam vat. Nauch.-issl.trudy IvNITI 23:168-172  
'59. (MIRA 14:4)

(Dyes and dyeing--Cotton)



PLAKSIN, S.A.; GRIBUNINA, N.A.

Processing fabrics after coupling with azo dyes. Tekst.prom. 18  
no.5:42-44 My '58. (MIRA 11:5)

(Dyes and dyeing--Cotton) (Azo dyes)

PLAKSIN, S.A.

PLAKSIN, S.A., nauchnyy sotrudnik; PLATONOV, M.F., nauchnyy sotrudnik;  
SMIRNOV, V.I., nauchnyy sotrudnik; KUMOSHENSKIY, M.D., nauchnyy  
sotrudnik.

Increasing the size of bales of unbleached fabric. Tekst.prom.  
17 no.10:59-60 0 '57. (MIRA 10:12)

1.Ivanovskiy nauchno-issledovatel'skiy tekstil'nyy institut.  
(Cotton fabrics)

Plaksin, S. A., Makarova, A. S.

Textile Finishing

Washing out printed cloth. Tekst.prom. No. 5, 1952.

9. Monthly List of Russian Accessions, Library of Congress, August 1952. Unclassified.

29

CA

**Dyeing of sulfur dyes with steaming** S. A. Plaksin and P. G. Vikhlyantsev. *Izv. Akad. Nauk SSSR Tekh. Tekh. Khim. Prom. Nauch.-Issledovatel. Trudy* 18, Khlopchatobumazh. Prom. Nauch.-Issledovatel. Trudy 90-9 (1951) --The design of the steaming chamber used for treatment of dye-impregnated cloth by passing it in rollers through a rectangular chamber kept at 98-100° is described. The standard procedure used was a 30-sec. dyeing and 42-sec. steaming period without access of atm. Tests were run with Sulfur Black, Sulfur Blue, Sulfur Yellow-Brown, and Sulfur Bright Green (all used as pastes). In all cases the steaming treatment gave more uniformly dyed fabrics, with indication of fixation of 10-20% more dye on the cloth than takes place without the steam treatment. The steam treatment leads to the appearance of small amts. of Na<sub>2</sub>S in the wash baths, which does not occur in dyeing without steaming, since Na<sub>2</sub>S is oxidized on the cloth in the aging cycle. A reduction by 33% of the Na<sub>2</sub>S concn. in the dye bath is recommended if the steaming step is used.

G. M. Kosolapoff

PC

B 2

1st and 2nd orders

PROCESSES AND PROPERTIES INDEX

MEMORANDUM ON METHOD OF DYEING DRESSING. V. E. Rostovtsev and S. A. Yakubov (Zhuk. prom., 1949, No. 1, 22-25). Mechanical processes for accelerating the dyeing process by removal of exhausted layers of dye-bath at the fibre surfaces are discussed. A laboratory dyeing machine is described in which the cloth is first subjected to suction by passage over a slotted evacuated box. This increases the amount of adsorbed dyestuff. E. H. LITVINOV.

ASAC-SLA METALLURGICAL LITERATURE CLASSIFICATION

SEARCHED INDEXED

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Stable color with indigosols. P. V. Morvanov and S. A. Plaksin. *Bull. Inzh. Nauch.-Issledovatel. Tekh. Inst.* 1938, No. 6-7, 60-87; *Khim. Referat. Zhur.* 2, No. 5, 105-6(1939).--Methods for the dyeing with different dyes are given. To avoid the premature oxidation of indigosols during drying it is recommended to add  $\text{NH}_4$  to counteract the acidity produced by the addn. of the  $\text{NH}_4$  salts. Best results were obtained by addn. of  $(\text{NH}_4)_2\text{C}_2\text{O}_4$ . Addn. of alizarin and ricin soap gave good results.  $\text{K}_4\text{Fe}(\text{CN})_6$  and  $\text{NH}_4$  vanadate were investigated as catalysts. A prolonged boiling caused up to 23.5% loss of strength of the fibers. W. R. Henn

21

ASIS-USA METALLURGICAL LITERATURE CLASSIFICATION

PLAKSIN, S.

Technical servicing of exported machinery and equipment [with English summary in supplement]. Vnesh. torg. 29 no.4:23-27 '59.  
(MIRA 12:6)

(Germany, East--Export sales)  
(Machinery--Maintenance and repair)

PLAKSIN, S.

Organization of East Germany's export trade. Vnesh. torg. 27 no.9:  
41-46 '57. (MLRA 10:9)  
(Germany, East---Commerce)



PLAKSIN, S.

Fruitful cooperation within the framework of the Mutual Economic  
Assistance Council. Vnesh. torg. 30 no.10:16-19 '60. (MIRA 13:10)  
(Iron industry) (Steel industry)  
(Mutual Economic Assistance Council)

Experience Gained with ...

5/196/61/000/001/005/006  
E073/E535

excessively high. It is essential to improve the quality of erection work of control panels and also of the command-controller KA-5031. The latter has an excessively heavy handle, very poor fixing in individual positions and unsatisfactory fastening of the lid. It is desirable to produce cast bodies for the command-controller. The contacts must be more carefully set. It is necessary to produce track and end switches with segmental circuit-breaking and improve the design of the lids. The breaking coils, types КМΠ (KMP) and КМТ (KMT), frequently fail due to poor quality winding, breaking off of leads and unsatisfactory assembly of the steel of the magnetic cores. Automatic machines of series A-2000 and A-3100 do not operate selectively. The quality of the main contact springs is low. Cases were observed of burning out of the plastics. The good quality and some defects of new types of tropicalized equipment are pointed out.

[Note: The above text is a full translation of the original Soviet abstract.]

Card 2/2

S/196/61/000/001/005/006  
E073/E535

AUTHOR: Plaksin, P. F.

TITLE: Experience Gained with Control Apparatus at the  
"Azovstal'" Works

PERIODICAL: Referativnyy zhurnal. Elektrotehnika i energetika,  
1961, No.1, pp.56-57, Abstract No.11404 Sbornik  
Sostoyaniye i perspektivy razvitiya konstruktsiy  
nizkovol'tn. apparatov, M.-L., Gosenergoizdat, 1959,  
256-263

TEXT: Satisfactory operation of apparatus depends on the  
correct selection of the current rating in the design, on the design  
features and on correct installation, setting and operation. To  
save costs, project organizations frequently specify the use of  
apparatus with reduced operating parameters, which leads to  
unstable operation of electric circuits and to premature wear  
of the apparatus. Design inadequacies of contactors КП-500  
(КР-500) and КТП-500 (КТП-500) are: inadmissible clearances in  
the prisms, inadequate strength of the cores and supporting arms  
and of other plastic components as well as of springs. The  
quality of coils is low and the wear of rubbing surfaces is  
Card 1/2

PLAKSH, P.A.

Pod oznacheniem. Vozrast 46 let. Vozrast 3 let. (1914-1915)

1. Direktor Priiskirovskogo nauchno-issledovatskogo proiz-  
vodstvennogo upravleniya, Priiskirovskiy Ray. KSP.

PLAKSIN, N.N.

Method for elimination of the sticking of needles in a pulverizer.  
Elek. i tepl. tiaga 4 no. 2:18 F '60. (MIHA 13:6)

1. Master depo Zaslauks, Latvyskaya doroga.  
(Diesel engines--Maintenance and repair)

PLAKSIN, N.N., master

Using "victory"-type filters on the MG1 diesel locomotive.  
Elek. i tepl. tiaga 2 no.11:31 N '58. (MIRA 11:12)

1. Depo Zaslauks, Latvyskaya doroga.  
(Oil filters) (Diesel locomotives)

PLAKSIN, N.N., master po remontu teplovozov

We need a clear instruction book on the MGI diesel locomotive.  
Elek. i tepl. tiaga 2 no.8:45 Ag '58. (MIRA 11:9)

1. Depo Zasulauk, Latviyskaya doroga.  
(Diesel locomotives--Maintenance and repair)

PLAKSIN, N. N.

1A 1790

USSR/Chemical Technology  
Mineral Extraction

1 May 1947

"On the Influence of the Granulometric Characteristic  
and Films on the Extraction and Separation of Sul-  
phide Minerals in Froth Flotation," N N Plaksin,  
G N Khazhinskaya, 4 pp

"Dok Akad Nauk USSR Nov Ser" Vol LVI, No 4

1790



PLAKSIN, M. V.

"Investigation of Splitting Short Wooden Sections." Thesis for degree of Cand. Technical Sci. Sub 30 Jun 50, Moscow Forestry Engineering Inst.

Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva. Jan-Dec 1950.

PLAKSIN, M.V.; BOYKO, A.P., otv.red.; BLIKH, V.V., red.; SARANYUK, T.V.,  
tekhred.

[Fundamentals of the efficient organization of lumbering]  
Osnovy ratsional'nogo postroeniia proizvodstvennogo protsesssa  
lesorazrabotok. Izd-vo L'vovskogo univ., 1958, 124 p. (MIRA 12:1)  
(Lumbering)

SHOKHMAN, Ya.D., kand. med. nauk (Vokrop'yansk, Kazanskoy oblasti.  
Vokzal'naya ul., d. 28, kv. 27). 1941-44, I.D., kand. med. nauk  
posrednik

Injuries of the hand in children due to poisonous substances.  
(rtop., travm. i protiz. 35 no. 11-57-59 4 16%).

(Mirova, 1961)

1. Is detakom, a torado from the 1st kashy. 1941-44.  
Ya.D. Shokhman' (1941-44) (Mirova, 1961) (Mirova, 1961)  
Spartopod. (Mirova, 1961) (Mirova, 1961) (Mirova, 1961)  
1961.

L 24208-66

ACC NR: AP6015176

Section 2 "mathematical description" of axis II in accord with the intersection of axis I is interpreted in the following manner: 02 -- mathematical models and description of separation process; 12 -- calculation of schemes and equipment; 22 -- mathematical description of grinding and crushing; 32 -- granulometric characteristics and graphic descriptions; 42 -- kinetics and efficiency of gravitational process; 52 -- (see above); 62 -- kinetics, mathematical models of combined processes, etc.

III. Scale of research. 0 -- general; 1 -- theoretical; 2 -- economics; 3 -- designing; 4 -- laboratory; 5 -- semi-industrial; 6 -- industrial.

IV. Valuable component of mineral is denoted by the symbol of the corresponding chemical element or the first letter of mineral's name (U [Cyrillic] -- coal, a [Cyrillic] -- diamond, Cu -- copper, etc.

Thus, any question can be coded with four symbols, and the article or book -- by several combinations of such symbols. For example, the article "Laboratory Research of Reagents for Flotation of Copper and Iron Ores" will be coded in the form 553 Cu-Fe.

A system of coordinates for any narrower circle of questions can be coded or compiled according to this same principle.

For example, in the Laboratory of Automation of Giredmet, together with the Council on Cybernetics of the Academy of Sciences USSR under the leadership of V. V. Nalimov, a card index on punch cards is being created for the application of mathematical methods of research. [JPRS]

SUB CODE: 05, 08 / SUBM DATE: none / ORIG REF: 005

Card 4/4 BLQ

L 24208-66

ACC NR: AP6015176

questions with the greatest accuracy. For concentration of ores the following four axes can be broken down. I. The process of concentrating. 0 -- general questions; 1 -- description of enterprises; 2 -- crushing, grinding; 3 -- classification according to coarseness and shape; 4 -- gravitation (tabling, jigging, etc.); 5 -- flotation; 6 -- flotation-gravitation and combined methods; 7 -- magnetic, electrical, radiometric, concentrating according to color and brilliance; 8 -- hydrometallurgy; 9 -- thermal processes, roasting, drying, agglomerating, briquetting, coking. II. 0 -- general questions; 1 -- theory; 2 -- mathematical description; 3 -- equipment; 4 -- auxiliary processes; 5 -- auxiliary equipment; 6 -- inspection and testing; 7 -- automation; 8 -- economics; 9 -- comparison of different ores. Here the first axis characterizes the technical process; the second -- the basic trends of research of each process. For example, according to axis I, section 5 ("flotation") can be interpreted in accord with the list of axis II in the following manner: 50 -- monographs of a general character, teaching manuals, conferences, historical surveys; 51 -- theory, elementary act; theory of surface phenomena; 52 -- kinetics, criteria of effectiveness, mathematical models; 53 -- flotation machinery; 54 -- absorption, contacting, acid and base processing of pulps, non-formation of tailings; 55 -- reagents, reagent suppliers, contact vats; 56 -- flotation machinery control pH sensors, reagent concentration sensors, reserve of metals, testing; 57 -- automation of flotation, factory control; 58 -- economic problems of flotation, complexity of flotation processes; 59 -- flotation methods and a comparison of them.

Card 3/4

L 24208-66-

ACC NR: AP6015176

1. Prerequisites: a) material (description of ore, minerals, reagents); b) literature sources.
2. Method of investigation: a) scale (laboratory, semi-industrial, theoretical); b) description of apparatus, operating conditions, or citation to the corresponding report. For new methods the probable experimental error should be indicated; c) the method of treating the results, use of special criteria and graphics.
3. The obtained experimental data.
4. Discussion of the results and the conclusions.
5. Bibliography.

As practice has indicated, in a work compiled according to such a scheme, the number of repetitions, general phrases, well known conditions and other information of little value is kept to a minimum.

For technical problems and particularly for the concentration of ore, the most suitable searching system is the superpositional coordinate system of indexing. Each axis of the coordinate system includes a set of questions which cover all their varieties according to some kind of single principle. Any report can be characterized accurately, which is found on the intersection of the corresponding coordinates and which characterize the classification of a given report from the viewpoint of each of the principles. Layout of the axes should be done in such a manner that for a mass of questions dealing with the effort of a single laboratory a minimum number of headings would permit finding of the information on these

Card 2/4

L 24208-66 EWP(m)/EWP(t) JD/JXT(BF)

ACC NR: AP6015176

SOURCE CODE: UR/0032/65/031/010/1235/1237

AUTHOR: Plaksin, I. N.; Barskiy, L. A.

ORG: Institute of Mining im. A. A. Skochinskiy (Institut gornogo dela)

TITLE: Experiment in generalizing and coding information on ore concentration

SOURCE: Zavodskaya laboratoriya, v. 31, no. 10, 1965, 1235-1237<sup>18</sup>

TOPIC TAGS: information storage and retrieval, computer coding, metal, mineral, ore

ABSTRACT: At the present time about 2,500 articles, books, and patents are published yearly in the whole world on problems of ore dressing. The existing universal decimal classification on the concentration of ores is composed in a general form and contains a number of specific inaccuracies which complicate its application in searching for information on specific problems.

In the process of work, certain methods were used by the authors which facilitated searches for information on concentration of ores and also proposals were formulated relative to the compilation of articles and abstracts, which increase the effectiveness of their use.

An article or abstract should be composed according to a general scheme. For example, for an article on the technique of ore concentrating the following plan can be recommended:

Card 1/4

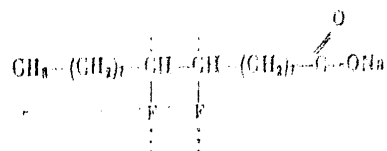
UDC: 519.24

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1. 11-07-64  
ACC NR: AP6019534



which then precipitates. The zirconium oxide is recovered from the precipitate by treatment with concentrated  $\text{H}_2\text{SO}_4$  at pH=2-3. The optimum quantity of sodium fluoride was found to be equal to 250-300 grams per ton of mixed ore. By this procedure, one obtains a titanium concentrate containing 89.9%  $\text{TiO}_2$  and a zirconium concentrate containing 62.0%  $\text{ZrO}_2$ . It is suggested that the method can be employed generally in the separation of nonsulfide type ores. The IR spectra of the oleic acid on mineral surfaces before and after treatment with sodium fluoride are given. Orig. art. has: 2 figures, 1 formula.

SUB CODE: 07,11/

SUBM DATE: 09Nov65/

ORIG REF: 003/

OTH REF: 001



ACC NR: AP6019534

(A)

SOURCE CODE: UR/0020/66/168/004/0864/0866

AUTHOR: Flaksin, I. N. (Corresponding member AN SSSR); Shafeyev, P. Sh.; Chanturiya, V. A.

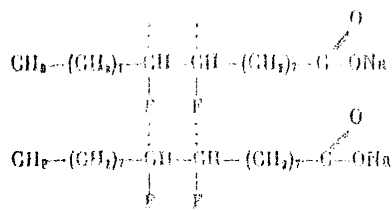
ORG: Mining Institute im. A. A. Skochinskiy (Institut gornogo dela)

TITLE: Nature of interaction between sodium fluoride and oleic acid during floatation separation of titanium and zirconium ores

SOURCE: AN SSSR. Doklady, v. 158, no. 4, 1966, B64-B66

TOPIC TAGS: IR spectrum, sodium compound, titanium oxide, zirconium compound, floatation, oleic acid

ABSTRACT: A method of separating zirconium and titanium ores by means of selective precipitation of zirconium oxide from the mixed ores during floatation is described. The method is based on the selective reaction of sodium fluoride with oleic acid adsorbed on zirconium oxide resulting in the formation of an organic polyfluoride



Card 1/2

UDC: 547.397

ACC NR: AP7010715

Following order as to their effect on extraction equilibrium and their ability to form hydrogen bonds: heptyl alcohol, decyl alcohol, isoamyl acetate, metaxylene, dichlorodiethyl ether, carbon tetrachloride, kerosene. Orig. art. has: 3 figures, 11 formulas and 1 table. [JPRS: 40,361]

ACC NR: AP7010715

SOURCE CODE: UR/0020/66/171/006/1348/1351

AUTHOR: Maksin, I. N. (Corresponding Member AN SSSR); Strizhko, V. S.;  
Fedotov, Yu. S.

ORG: none

TITLE: Effect of diluents on the extraction of rare-earth elements by  
carboxylic acids

SOURCE: AN SSSR. Doklady, v. 171, no. 6, 1966, 1348-1351

TOPIC TAGS: lanthanum, praseodymium, neodymium, gadolinium, carboxylic acid,  
aliphatic alcohol

SUB CODE: 11, 07

ABSTRACT: The authors studied some peculiarities in the reaction of diluents with aliphatic synthetic acids of the C<sub>7</sub> - C<sub>9</sub> fraction in the extraction of lanthanum, praseodymium, neodymium and gadolinium. The role of the diluents depends essentially on the proton affinity, as well as the ability to form addition compounds with the acid molecules through hydrogen bonds of varying strength and polarity. Carboxylic acids and alcohols possess donor-acceptor properties with respect to hydrogen. Extraction is considerably less affected by diluents which are only proton acceptors in an acid-base reaction. Nonpolar diluents have the least effect. The diluents studied are listed in the  
Cord 1/2 UDC: 542.61

0930

2926

PIAZHEN, I.N.; SHIVREN, G.N.

Regularities of the extractive distribution of cyanic noble  
metals complexes. Izv.vys.ucheb.zav.; tsvet.met. 8 no.2  
50-57 '65. (USSR 1961)

1. Kafedra metallurgii tyazhelykh tsvetnykh i blagorodnykh  
metallov Krasnoyarskogo instituta tsvetnykh metallov. Submitted  
October 7, 1963.

ILLEGIBLE

Mechanism of the effect of ...

S/020/63/148/003/037/037  
B117/B186

SUBMITTED: October 11, 1962

Card 3/3

S/O20/63/148/003/037/037  
B117/B186

Mechanism of the effect of ...

reduced by aerated emulsion. This is attributed to the different interaction between peroxide group and titanium- and zirconium ions respectively. The ilmenite surface becomes hydrophobic through the complex compound

$[\text{TiO}_2(\text{H}_2\text{O}_2)]^{2+}$  which develops from the reaction of titanium with the peroxide group. The zirconium surface, however, gets hydrophilic through the strongly hydrated compound  $\text{Zr}_2\text{O}_5 \cdot 4\text{H}_2\text{O}$  formed by the reaction of

zirconium with the peroxide group. It was found that during selective flotation of titanium-zirconium sand sodium fluoro-silicate can be used as effective regulator forming soluble complex titanium compounds with  $(\text{TiF}_6)^{2-}$  and an insoluble hydrophilic zirconium fluoride complex. The

silicate group of the Zr gets hydrophilic through the silicate group of  $\text{Na}_2\text{SiF}_6$ . To avoid unpleasant side reactions, it was recommended to

introduce  $\text{Na}_2\text{SiF}_6$  only after the aerated oleic acid emulsion. There are 3 figures.

ASSOCIATION: Institut gornogo dela im. A. A. Skochinskogo (Mining Institute imeni A. A. Skochinskiy)

Card 2/3

S/020/63/148/003/037/037  
B117/B186

AUTHORS: Plaksin, I. N., Corresponding Member AS USSR, Dorokhina,  
S. N.

TITLE: Mechanism of the effect of oleic acid oxidized with  
molecular oxygen during selective flotation of titanium-  
zirconium sands

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 148, no. 3, 1963, 651-653 ✓

TEXT: The effect of the autoxidation on the properties of oleic acid as flotation agent for the selective flotation of titanium-zirconium sands of different compositions was investigated. The effect of the oxidized oleic acid on the flotation of ilmenite was shown to become stronger, as its content of titanium (catalyst of the autoxidation) and of the less bivalent iron is increased. The selectivity of the flotation agent is strongly changed by treating the oleic acid emulsion with oxygen. In the flotation of titanium-zirconium sand from the same deposit it was observed that the extraction of ilmenite is increased by 38% when using an oxidized oleic acid emulsion, while the zirconium extraction is simultaneously

Card 1/3



PIAKSIN, I.N.; DZHEMARD'YAN, Yu.A.; MALYSHEVA, N.G.; STARCHIK, L.P.

Study of factors affecting the nuclear reaction method of  
determining lithium and boron in products of ore dressing.  
TSvet. met. 38 no.6:18-22 Je '65. (MIRA 72,10)

FLAKSIN, I.N.; KIKITIN, P.V.

Calculation of the activity of gamma-emitters for beta-  
absorption analysis. Zav. lab. 31 no. 12:1461-1465 '65  
(Sov. 1965)

1. Tsentral'nyy nauchno-issledovatel'skiy institut atomnoy  
promyshlennosti.

PLAKSIN, I.N.; b. 1914, 1915.

Experienced in work on the use of minerals in the production of useful minerals. Zar. 1914. 31 m. 1915. 1917. (MIRA 1943)

1. Institut general de la zona Sarmatiana.

PLAKSIN, I.N.; NIKITIN, F.V., inzh.

Design of gamma emitters for X-ray radiometric analysis.  
Izv.vys.ucheb.zav.; gor.zhur. 8 no.11.162-166 '65.  
(MIRA 19.1)

1. Tsentral'nyy nauchno-issledovatel'skiy institut olova.  
Rekomendovana seminarom otdela obogashcheniya poleznykh  
iskopayemykh Instituta gornogo dela imeni Skochinskogo.  
Submitted October 26, 1964.

BLAKOV, I.N.; VELICHKOV, N.I.; NAGIBNYAK, F.I.

Role of bivalent cations in the flotation of quartz. (Russian).  
probl. razrab. pol. iskop. no. 6: 139-143 1965. (65) 1111

1. Institut gornogo dela imeni Skochinskogo, Moscow.

PIAKSIN, I.N.; UTEUSH, E.V.; UTEUSH, Z.V.

Control of the technological process in ore dressing plants.  
Fiz.-tekh. probl. razrab. pol. iskop. no.4:126-130 '65.

(MIRA 19:1)

1. Institut gornogo dela imeni Skochinskogo, Moskva i Institut  
gornogo mashinostroyeniya, avtomatiki i vychislitel'noy tekhniki,  
Khar'kov, zavod kontrol'no-izmeritel'nykh priborov. Submitted  
Feb. 2, 1965.

PLAKSIN, I.N., otv. red.

Zanthate distribution control in the flotation process.  
Kontrol' raspredeleniia ksantogenata v protsesse flota-  
tsii. Moskva, Nauka, 1965. 117 p. (MIRA 19:1)

1. Moscow. Institut gornogo dela imeni A.A.Skochinskogo.
2. Chlen-korrespondent AN SSSR i Institut gornogo dela imeni A.A.Skochinskogo, Moskva.

PLAKSIN, I.N., otv. red.; ROMANOVA, L.A., red.

[New studies in the field of dressing small classes of  
coal and ores] Novye issledovaniia v oblasti oboagashche-  
niia melkikh klassov uglei i rud. Moskva, Nauka, 1966.  
(MIRA 19:1)  
73 p.

1. Moscow. Institut gornogo dela imeni A.A. Skochinskogo.



ACCESSION NR: AP4041149

AUTHOR: Plaksin, I. N.; Maly\*sheva, N. G.; Starchik, L. P.

8/0020/64/156/004/0803/0805

TITLE: Application of bremsstrahlung of beta emitters for excitation of photo-nuclear reactions

SOURCE: AN SSSR. Doklady\*, v. 156, no. 4, 1964, 803-805

TOPIC TAGS: gamma bremsstrahlung, artificial beta emitter, gamma irradiation, beryllium irradiation, deuterium irradiation, gamma neutron reaction, photonuclear reaction

ABSTRACT: The reaction of gamma photons ( $\gamma, n$ ) is used for the determination of Be in ores and of D in water. Their energy must be greater than 1.63 and 2.23 Mev for Be and D, respectively. The natural gamma emitters are expensive, and the artificial ones too short lived. Therefore the authors used the artificial beta emitter  $\text{Sr}^{90}$  ( $T_{1/2} = 28.4$  yrs), in equilibrium with the daughter product  $\text{Y}^{90}$  ( $T_{1/2} = 64.8$  hrs) which emit beta particles with  $E_{\text{max}} = 2.27$  Mev, and some other beta emitters. The source of 500 mcurie was surrounded by a lead shell which served for the production of gamma photons and at the same time shielded the

Card 1/2

ACCESSION NR: AP4029532

acid solution of thiocarbamide permitted the removal of the CN-ion from the resin with the subsequent regeneration of cyanide and simultaneously desorbed the noble metals, copper and, in part, iron. For full removal of iron, the resin must be periodically treated by strong solutions of sodium cyanide. A method of treating was suggested for the gold containing ore tailings by sorbtion leaching in the presence of the strong base anionite, with subsequence elution of sorbed elements and the separation of noble metals by cupellation or electrolysis. Orig. art. has: 3 figures and 3 tables.

ASSOCIATION: Moskovskiy institut stali i spalov (Moscow Steel and Alloy Institute)

SUBMITTED: 25Dec62

DATE ACQ: 30Apr64

ENCL: 00

SUB CODE: ML

NO REF SOV: 007

OTHER: 001

Cord 2/2

ACCESSION NR: AP4029532

S/0149/64/000/002/0106/0113

AUTHOR: Plaksin, I.N.; Tetaru, S.A.

TITLE: Sorbtion leaching of gold containing ores

SOURCE: IVUZ. Tsvetnaya metallurgiya, no.2, 1964, 106-113

TOPIC TAGS: gold, gold containing ore, sorbtion leaching, ion exchange resin, flotation, cynation, elution,

ABSTRACT: The authors investigated the flotation tailings of quartz gold containing ore subjected to sorbtion leaching under laboratory conditions. Cynation characteristics were studied and presented in a table along with sorbtion cynation of the tailings. A method for the elution of resin and the regeneration of cyanide was given. It was found that the sorbtion leaching of flotation tailings of gold containing ore could successfully improve the gold yield by 2.5% in comparison with ordinary cynation. This can be obtained by sorbtion of the dissolved gold by ionite, as well as by maintaining the high activity of the cyanide solution as a consequence of the sorbtion of the impurities by the ion exchange resin. The free cyanide was partially absorbed by the ionite. The elution of saturated resin by hydrochloric

Card 1/2